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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,459	12/30/2003	Kazuo Matsuda	OCA-184-A	3998
21828	7590	06/07/2006	EXAMINER	
CARRIER BLACKMAN AND ASSOCIATES			BAUER, SCOTT ALLEN	
24101 NOVI ROAD				
SUITE 100			ART UNIT	
NOVI, MI 48375			PAPER NUMBER	
			2836	

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/749,459	Applicant(s) MATSUDA ET AL.	
	Examiner Scott Bauer	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/30/3 7/2/4 7/25/5</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in Japan on 12/26/2002. A claim for priority under 35 U.S.C. 119(a)-(d) cannot be based on said application, since the United States application was filed more than twelve months thereafter.

Information Disclosure Statement

2. The 4,847,309 reference contained in the IDS dated 12/30/2003 was not considered because it is believed the document number was entered in error.

Claim Objections

3. Claims 9 & 10 are objected to because of the following informalities: The phrase "wherein the ignition said communication/ignition circuit " in lines 1 & 2 should be revised to better describe that which Applicant claims as the invention. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goernig et al. (US 2002/0166472) in view of Davis et al. (US 5,760,489).

7. With regard to Claim 1, Goernig et al. teaches an ignition device comprising an ignition package (4 & 5) integrally comprising a communication/ignition circuit (6) provided on a chip (2), which is constructed of an thermal insulating material (paragraph 0023), and that the igniter (11) contains an ignition element (1) provided on the chip. Goernig et al. further teaches that the ignition device comprises a bus connection (paragraph 0032 lines 1-4), and that the ignition element is provided on another chip than the ignition package (paragraph 0033).

Goernig et al. does not teach that the bus connection is of a type in which a plurality of the ignition devices are connected to an ignition control system via a common bus, and the ignition devices are selectively operable by means of electrical energy and an electrical signal supplied from the ignition control system, that the chip is a silicon chip.

Davis et al., in Figures 1 & 2, teaches an ignition device comprising a bus connection, of a type in which a plurality of the ignition devices (20A-N) are connected to an ignition control system (11 & 12) via a common bus (14 & 16), and the ignition devices are selectively operable by means of electrical energy and an electrical signal supplied from the ignition control system (column 2 lines 9-36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Goernig et al. with Davis et al., by connecting a plurality of ignition devices taught by Goernig et al. to the bus connection (14 & 16) of Davis et al. for the purpose of providing mechanical shock protection to a multiple airbag system.

It further would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the substrate (2) of Goernig et al. out of silicon, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

8. With regard to Claim 2, Goernig et al. teaches an ignition device comprising an ignition package integrally comprising a communication/ignition circuit (6) provided on a chip (2), which would necessarily be constructed of an insulating material, and that the device contains an ignition element (1) also provided on the chip. Goernig et al. further teaches that the ignition device comprises a bus connection (paragraph 0032 lines 1-4).

Goernig et al. does not teach that the bus connection is of a type in which a plurality of the ignition devices are connected to an ignition control system via a common bus, and the ignition devices are selectively operable by means of electrical energy and an electrical signal supplied from the ignition control system, or that the chip is a silicon chip.

Davis et al., in Figures 1 & 2, teaches an ignition device comprising a bus connection, of a type in which a plurality of the ignition devices (20A-N) are connected to an ignition control system (11 & 12) via a common bus (14 & 16), and the ignition devices are selectively operable by means of electrical energy and an electrical signal supplied from the ignition control system (column 2 lines 9-36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Goernig et al. with Davis et al., by connecting a plurality of ignition devices taught by Goernig et al. to the bus connection (14 & 16) of Davis et al. for the purpose of providing mechanical shock protection to a multiple airbag system.

It further would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the chip (2) of Goernig et al. out of silicon, since it

has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

9. With regard to Claims 3 & 4, Goernig et al. in view of Davis et al. discloses the ignition device for bus connection of Claim 1. Goernig et al. further discloses that the ignition package (4 & 5) is used as a header of the ignition device.

10. With regard to Claim 5, Goernig et al. in view of Davis et al. discloses the ignition device for bus connection of Claim 1. Goernig et al. further discloses that the ignition element (1) is disposed on an outer surface of the ignition package (4 & 5) in contact with an igniting agent (3).

11. With regard to Claim 6, Goernig et al. in view of Davis et al. discloses the ignition device for bus connection of Claim 2. Goernig et al., in figures 4 & 5, further discloses that the ignition package (4 & 7C) has an opening defined therein, and said ignition element (1) is disposed in said opening in contact with an igniting agent (3).

12. With regard to Claims 7 & 8, Goernig et al. in view of Davis et al. discloses the ignition device for bus connection of Claims 1 & 2. Goernig further discloses that the ignition package (4 & 5) further comprises a potting material having said

communication/ignition circuit and said ignition element embedded therein (paragraph 0023 lines 1-7).

Goernig et al. does not disclose that the potting material is comprised of a synthetic resin.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to constructing the potting material of the ignition package of a synthetic resin, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

13. With regard to Claim 9, Goernig et al. in view of Davis et al. discloses the ignition device for bus connection of Claim 1. Goernig et al. further discloses that the ignition communication/ignition circuit (6) and said ignition element (1) are electrically connected within said ignition package via a soldered connection (paragraph 0033).

14. With regard to Claim 10, Goernig et al. in view of Davis et al. discloses the ignition device for bus connection of Claim 2. Goernig et al. further discloses that the ignition communication/ignition circuit (6) and said ignition element (1) are electrically connected within said ignition package via traces (22).

15. With regard to Claims 11 & 12, Goernig et al. in view of Davis et al. discloses the ignition device for bus connection of Claims 1 & 2. Goernig et al. further discloses pins

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(8), being electrically connected to a communication/ignition circuit and that the pins are connected to a common bus (paragraph 0032 lines 1-4).

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Goernig et al. (US 2002/0166473) discloses an igniter arrangement wherein a communication/ignition circuit (6) is used to heat an ignition element (1) to ignite a charge (3) in order to deploy an airbag.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bauer whose telephone number is 571-272-5986. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2058. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SAB

26 MAY 2006



**CHAU N. NGUYEN
PRIMARY EXAMINER**